

STATEMENT OF CLAIMS STATUS

Claims 1-3 and 6-11 are pending.

Claims 1-3 and 6-11 are rejected .

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SUMMARY OF RESPONSE

Detailed Action

Claim Rejections - 35 USC § 103

1. Examiner States: "Claims 1-3,6, and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Donnell, Jr. U.S. Patent 6,106,514 in view of Purchio et.al. U.S. Patent 5,599,788. O'Donnell, Jr. discloses apparatus and method for treating subsurface layer of skin, the method comprising the steps of: applying anti-inflammatory, anti-oxidant (wound healing) pharmaceutical agent to the skin (Col. 3, lines 21-26); and irradiating the skin with laser energy sufficient to cause stimulation of collagen remodeling for the purpose of effecting the tightening of the skin and reducing wrinkles without significantly altering the epidermis (see claims 1-3). As to claim 3, O'Donnell, Jr. applies mechanical energy to the skin tissue (Col. 6, lines 6-10). As to claim 8, his treatment reduces wrinkles. Therefore, since wrinkles result from photodamaged and/or aging skin, he provides the claimed method step. Although O'Donnell, Jr., described above, discloses pharmaceutical agent to enhance the treatment, he does not teach the use of growth factor such as H3 protein to promote the healing process. However, Purchio et al. disclose a method of producing recombinant transforming growth factor -induced H3 protein and its use to accelerate wound healing (see Col. 4, line 65 to Col. 5, line 9). They further teach that H3 protein may be combined with conventional chemotherapy and radiation treatment to increase the over all treatment efficiency (Col. 4, lines 58--60). Therefore, it would have been obvious to one skilled in the art at the time of the applicants invention to modify O'Donnell, Jr. and apply a growth factor such as H3 protein to the skin as taught by Purchio et al. in order to accelerate the wound healing and to enhance the over all treatment efficiency. As to claim 6 of the instant application, claim 3 of O'Donnell, Jr. teaches the claimed limitation."
2. Examiner States: "Claim 7 is rejected under 36 U.S.C. 103(a) as being unpatentable over

Tankovich et al. U.S. Patent 5,817,089 in view of Purchio et al. ('788). Tankovich et al. disclose phototherapy treatment methods for the reduction and removal of unwanted hair and the mitigation of skin conditions such as acne and seborrhea. However, they do not apply wound healing promoter composition to the skin to enhance the healing process. Purchio et al., described above, teach the use of a wound healing protein, which may be combined with conventional chemotherapy and radiation treatment to increase the over all treatment efficiency. Therefore, it would have been obvious to one skilled in the art at the time of the applicant's invention to modify the invention of Tankovich et al. with Purchio et al. to apply a wound healing protein to the skin being treated so as to enhance the wound healing process and improve the over all treatment efficiency."

3. Examiner states: "Claims 1-3, 6 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Donnell, Jr. U.S. Patent 6,106,514 in view of Hale et al. U.S. Patent 5,607,691. O'Donnell, Jr. discloses apparatus and method for treating subsurface layer of skin, the method comprising the steps of: applying anti-inflammatory, anti-oxidant (wound healing) pharmaceutical agent to the skin (Col. 3, lines 21-26); and irradiating the skin with laser energy sufficient to cause stimulation of collagen remodeling for the purpose of effecting the tightening of the skin and reducing wrinkles without significantly altering the epidermis (see claims 1-3). As to claim 3, O'Donnell, Jr. applies mechanical energy to the skin tissue (Col. 6, lines 6-10). As to claim 8, his treatment reduces wrinkles. Therefore, since wrinkles result from photodamaged and/or aging skin, he provides the claimed method step. Although O'Donnell, Jr., described above, discloses pharmaceutical agent to enhance the treatment, he does not teach the use of growth factor such as H3 protein to promote the healing process. Hale et al. disclose a method for treating the skin of a patient, the method comprising the steps of: delivering to the skin a pharmaceutical agent such as H3 protein (Col. 26, lines 22-39; Col. 45, lines 35-41; and Col. 51,

lines 17-40); and applying EM energy to the skin being treated (Col. 50, lines 27-39). Therefore, it would have been obvious to one skilled in the art at the time of the applicant's invention to modify O'Donnell, Jr. and apply a growth factor such as H3 protein to the skin as taught by Hale et al. in order to accelerate the wound healing and to enhance the over all treatment efficiency."

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AMENDMENT AND RESPONSE

1. (currently amended) A method for treatment of skin comprising:
treating a subsurface layer of skin with a source of energy sufficient to cause stimulation of collagen remodeling without coagulation of collagen, in conjunction with applying a wound healing composition ~~containing H3 protein growth factor~~ to the skin, thereby achieving improved collagenesis in the skin.
2. (original) The method of Claim 1 wherein the energy is electromagnetic energy.
3. (previously amended) The method of Claim 1 wherein the energy is mechanical energy.
4. (canceled)
5. (canceled)
6. (previously amended) The method of Claim 1 wherein the treatment is repeated serially with more than one day between any successive treatments.
7. (currently amended) A method for treatment of acne scars in skin, comprising:
treating subsurface and surface layers of the skin with a source of energy in order to stimulate collagenesis in the skin without ~~substantial injury to the epidermis~~ coagulation of collagen, in conjunction with applying a wound healing promoter composition ~~containing H3 protein growth factor~~ which enhances a healing response in the skin, thereby improving the appearance of the acne scars.

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8. (currently amended) A method for treatment of photodamaged skin, comprising:
treating the skin with a source of energy which stimulates collagenesis without ~~substantial injury to the epidermis~~ coagulation of collagen, in conjunction with applying a wound healing promoter composition ~~containing H3 protein growth factor~~ to the skin which enhances a healing response, thereby improving the appearance of the photodamaged skin.

9. (currently amended) A method for treatment of wrinkled skin, comprising:
treating the skin with a source of energy which stimulates collagenesis without ~~substantial injury to the epidermis~~ coagulation of collagen, in conjunction with applying a wound healing promoter composition ~~containing H3 protein growth factor~~ to the skin which enhances a healing response, thereby improving the appearance of the wrinkled skin.

10. (currently amended) A system for treatment of skin, comprising:
a source of energy which is sufficient to stimulate collagenesis in the skin without ~~substantial injury to the epidermis~~ coagulation of collagen; and
a wound healing promoter composition ~~containing H3 protein growth factor~~ which enhances a healing response in the skin to accelerate collagenesis therein, thereby resulting in improved appearance of skin.

11. (currently amended) A method for treatment of tissue comprising the following steps:
causing a subdermal ~~wound~~ stimulation of collagen without coagulation of collagen using a source of electromagnetic energy; and
applying a ~~growth factor containing H3 protein~~ wound healing promoter composition to the tissue, such that collagenesis, repair and healing improvement of tissue is accelerated.